CLAIMS:

What is claimed is:

1.   A method in a data processing system including a

5   storage device, said method comprising the steps of:

        providing a write cache in said storage device; and

        executing a FAST WRITE operation utilizing said

write cache only when writing particular types of data,

wherein a command complete status is returned prior to

10   writing data during said FAST WRITE operation and a

command complete status is returned only after writing

data when said FAST WRITE operation is not executed.

2.   The method according to claim 1, further comprising

15   the step of executing said FAST WRITE operation only when

writing particular amounts of sequential data.

3.   The method according to claim 1, further comprising

the steps of:

20   receiving an instruction to write first data to said

storage device;

        determining whether said first data is said

particular types of data;

        in response to a determination that said first data

25   is said particular types of data, returning a command

complete status and then writing said first data to said

storage device; and

        in response to a determination that said first data

is said not particular types of data, writing said first

30   data to said storage device and then returning a command

complete status.

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4.   The method according to claim 1, further comprising the steps of:

     receiving an instruction to write first data to said storage device;

5   determining whether said first data is sequential data;

     in response to said first data being sequential data, determining whether said first data can be written within a particular time frame;

10   in response to a determination that said first data is sequential data that can be written within said particular time frame, returning a command complete status and then writing said first data to said storage device;

15   in response to a determination that said first data is sequential data that cannot be written within said particular time frame, writing said first data to said storage device and then returning a command complete status; and

20   in response to a determination that said first data is non-sequential data, writing said first data to said storage device and then returning a command complete status.

25   5.   The method according to claim 4, further comprising the step of specifying said particular time frame, wherein said particular time frame is a minimum amount of time between a receipt of a power loss signal and a loss of power to said data processing system.

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     6.   The method according to claim 4, wherein the step of determining whether said first data can be written within

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a particular time frame further comprises the step of determining an amount of time required to write said first data to said storage device.

5   7.   The method according to claim 6, wherein said step of determining an amount of time required to write said first data to said storage device further comprises the steps of:

determining an amount of said first data;

10   determining a physical location in said storage device where said first data is to be written; and

determining an amount of time required for a read/write head to move to said physical location.

15   8.   A computer program product in a data processing system including a storage device, said computer program product comprising:

instruction means for providing a write cache in said storage device; and

20   instruction means for executing a FAST WRITE operation utilizing said write cache only when writing particular types of data, wherein a command complete status is returned prior to writing data during said FAST WRITE operation and a command complete status is returned 25   only after writing data when said FAST WRITE operation is not executed.

9.   The product according to claim 8, further comprising instruction means for executing said FAST WRITE operation 30   only when writing particular amounts of sequential data.

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10. The product according to claim 8, further comprising:

instruction means for receiving an instruction to write first data to said storage device;

5   instruction means for determining whether said first data is said particular types of data;

in response to a determination that said first data is said particular types of data, instruction means for returning a command complete status and then writing said

10   first data to said storage device; and

in response to a determination that said first data is said not particular types of data, instruction means for writing said first data to said storage device and then returning a command complete status.

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11. The product according to claim 8, further comprising:

instruction means for receiving an instruction to write first data to said storage device;

20   instruction means for determining whether said first data is sequential data;

in response to said first data being sequential data, instruction means for determining whether said first data can be written within a particular time frame;

25   in response to a determination that said first data is sequential data that can be written within said particular time frame, instruction means for returning a command complete status and then writing said first data to said storage device;

30   in response to a determination that said first data is sequential data that cannot be written within said particular time frame, instruction means for writing said

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first data to said storage device and then returning a
command complete status; and

     in response to a determination that said first data
is non-sequential data, instruction means for writing

5 said first data to said storage device and then returning
a command complete status.

12. The product according to claim 11, further
comprising instruction means for specifying said

10 particular time frame, wherein said particular time frame
is a minimum amount of time between a receipt of a power
loss signal and a loss of power to said data processing
system.

15 13. The product according to claim 11, wherein said
instruction means for determining whether said first data
can be written within a particular time frame further
comprises instruction means for determining an amount of
time required to write said first data to said storage

20 device.

14. The product according to claim 13, wherein said
instruction means for determining an amount of time
required to write said first data to said storage device

25 further comprises:

     instruction means for determining an amount of said
first data;

     instruction means for determining a physical
location in said storage device where said first data is

30 to be written; and

instruction means for determining an amount of time
required for a read/write head to move to said physical
location.

5   15.   A data processing system including a storage device,
comprising:
        a write cache in said storage device; and
        a storage device controller for executing a FAST
WRITE operation utilizing said write cache only when
10 writing particular types of data, wherein a command
complete status is returned prior to writing data during
said FAST WRITE operation and a command complete status
is returned only after writing data when said FAST WRITE
operation is not executed.
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16.   The system according to claim 15, further comprising
said controller for executing said FAST WRITE operation
utilizing said write cache only when writing particular
amounts of sequential data.
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17.   The system according to claim 15, further
comprising:
        said controller for receiving an instruction to
write first data to said storage device;
25   said controller for determining whether said first
data is said particular types of data;
        in response to a determination that said first data
is said particular types of data, said controller for
returning a command complete status and then writing said
30 first data to said storage device; and
        in response to a determination that said first data
is said not particular types of data, said controller for

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writing said first data to said storage device and then
returning a command complete status.

18.   The system according to claim 15, further
5   comprising:
        said controller for receiving an instruction to
write first data to said storage device;
        said controller for determining whether said first
data is sequential data;
10   in response to said first data being sequential
data, said controller for determining whether said first
data can be written within a particular time frame;
        in response to a determination that said first data
is sequential data that can be written within said
15   particular time frame, said controller for returning a
command complete status and then writing said first data
to said storage device;
        in response to a determination that said first data
is sequential data that cannot be written within said
20   particular time frame, said controller for writing said
first data to said storage device and then returning a
command complete status; and
        in response to a determination that said first data
is non-sequential data, said controller for writing said
25   first data to said storage device and then returning a
command complete status.

19.   The system according to claim 18, further comprising
a particular time frame, wherein said particular time
30   frame is a minimum amount of time between a receipt of a
power loss signal and a loss of power to said data
processing system.

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20. The system according to claim 18, wherein said
controller for determining whether said first data can be
written within a particular time frame further comprises
said controller for determining an amount of time
5 required to write said first data to said storage device.

21. The system according to claim 20, wherein said
controller for determining an amount of time required to
write said first data to said storage device further
10 comprises:

said controller for determining an amount of said
first data;

said controller for determining a physical location
in said storage device where said first data is to be
15 written; and

said controller for determining an amount of time
required for a read/write head to move to said physical
location.